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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/318,443	05/25/99	HEMMATI-BRIVANLOU	A 600-1-211N

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HM12/1119

EXAMINER

SATISH, J

ART UNIT	PAPER NUMBER
1645	7

DATE MAILED: 11/19/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/3R443

Applicant(s)

ALI HEMMATI-BRIVANLOU

Examiner

Jaya Lalish

Group Art Unit

1645

Paper No. 6

☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 7 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-26 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☐ Claim(s) _____ is/are rejected.

☐ Claim(s) _____ is/are objected to.

☒ Claims 1-26 are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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Election/Restriction

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-12, drawn to isolated nucleic acid molecules, classified 536, subclass 23.7, encoding a vertebrate translation initiation factor (4AIII), with a coding sequence of SEQ ID NO 1 and having an amino acid sequence substantially homologous to a) SEQ ID NO:2 b) SEQ ID 2 with a conservative amino acid substitution, c) a nucleic acid of claim 1 further comprising a heterologous nucleotide sequence encoding a fusion protein, d) the nucleic acid of claim 1 operatively linked to an expression control sequence, e) an isolated nucleic acid molecule containing 15 or more nucleotides that hybridizes under standard conditions to SEQ ID NO 1, f) or to nucleotides 1-90 of the coding region of SEQ ID NO:1; a transformed host cell with nucleic acid of (d), classified in class 435, subclass 325, culture of host cell under conditions that provide expression of protein.
- II. Claims 13-19, drawn to isolated protein, purified form of 4AIII with a detectable label, with an amino acid sequence substantially homologous with SEQ ID NO 2 or SEQ ID NO 2 with a conservative amino acid sequence or with SEQ ID NO:4; proteolytic fragments and fusion proteins, classified in class 530, subclass 350.

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- III. Claims 20-22, drawn to a monoclonal antibody having an amino acid sequence substantially homologous to SEQ ID NO 2 that binds to amino acids 1-30 of SEQ ID NO: 2, classified in class 530, subclass 387.1.
- IV. Claims 23-26, drawn to experimental methods using a *Xenopus* embryo (2 cell stage) classified in class 435, subclass 70.1, of identifying a potential drug that modulates the activity of 4AIII of SEQ ID NO 2 [4AIII plays a role in the differentiation of an embryonic cell to an epidermal cell] to induce transcription of epidermal markers and assay of the marker by RT-PCR.

The inventions are distinct, each from the other because of the following reasons:

Invention I drawn to isolated nucleic acid molecules and Invention II drawn to isolated protein molecules are distinct each from the other, since they are products with different structural, biological and functional properties. A protein is made of amino acids whereas nucleic acid molecules consist of nucleotides. Furthermore, methods known in the art to make the polypeptide require different reagents and parameters as compared to methods of making nucleic acid encoding the protein. The method of making the polypeptide does not require nucleic acid. For instance, protein can be made by chemical synthesis.

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Invention III is distinct from Invention I and II since it drawn to another product an antibody which has added features of interacting specifically with a polypeptide in such a manner as to inhibit the biological activity of the polypeptide.

Invention IV drawn to experimental methods is distinct from Inventions I, II, III drawn to products. The experimental methods include embryonic cell culture, micro injection of nucleic acid molecules (mRNA), extraction of RNA from the cells and assay of transcription of epidermal marker protein by RT-PCR and comparing amount of transcription in the presence/absence of an agent, a potential drug that modulates the activity of 4AIII to induce transcription of epidermal markers.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their separate classification and/or their divergent subject matter and/or their different search, restriction for examination purposes as indicated is proper.

A telephone call was made to Mr. Michael Davis on 11/5/99 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment

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of inventor ship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaya Satish at (703) 306 9047. The examiner can normally be reached, Monday through Friday from 9.00 AM to 4.00 PM. If attempts to reach the examiner by telephone are unsuccessful, a supervisory examiner, Anthony Caputa can be reached at (703) 305 -3995. Any inquiry of a general nature should be directed to the Group receptionist at (703) 308-1235.

Papers relating to this application may be faxed to Technology Center 1600 at (703) 308-4426.

Any documents submitted by fax transmission will be considered an official communication unless the cover sheet clearly indicates that it is an informal communication.



Jaya Satish, Ph.D.

Dated: November 5, 1999



ANTHONY C. CAPUTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600